Customer No.: 31561
Application No.: 10/710,818
Docket No.: 14217-US-PA-X

REMARKS

Present Status of the Application

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA of this application in combination with Shokouhi et al. (US patent 6,249,458).

Applicant has amended claim 1 to more clearly define the present invention. After entry of the foregoing amendments, claims 1-10 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Action Rejections

The Advisory Action stated that since pending claims recite "comprising", the claimed invention does not exclude inclusion of other element or steps that are recited.

Currently, claim 1 is amended as below:

Claim 1. An electrostatic discharge (ESD) protection device, comprising:
an ESD protection circuit, comprising:
at least a diode connected in series between a first voltage and a pad; and
at least an ESD component connected in series between a second voltage and a pad, wherein ***each of the at least an ESD component is composed of*** a deep N-well region formed in a P-type substrate, a triple P-well formed in the deep N-well region, and ***a highly doped N-type (N+) region and a highly doped P-type (P+) region*** formed in the triple P-well region.

The device of Fig. 7 disclosed by Shokouhi et al. is ***a triple P-well resistor including two P-doped regions 731, 733*** in the triple P-well 730 formed in the deep N-well 720 that is formed in a P-substrate 710, and the deep N-well 720 is biased by a system voltage (Vcc) and the P-

substrate 710 is grounded, thereby reverse biasing the central P-well region to limit leakage current from the P-well region. However, the device in claim 1 is ***each of the ESD components including a highly doped N-type region and a highly doped P-type region*** formed in a triple P-well located in a deep N-well region that is formed in a P-type substrate. Apparent the structure of the device disclosed by Shokouhi et al. are much different from the ESD component of claim 1 in structure. Thus, even combined with each other, the AAPA and Shokouhi '458 do not teach or suggest all of the limitations, as set forth in claim 1. MPEP §2143.03

The Advisory Action pointed out the motivation for combing the teachings of Shokouhi into the device of AAPA is to prevent leakage current. Further, it is submitted that since the applicant claims combination, this must be an evidence of success for the combination.

Applicant agrees that the combination of the teachings of Shokouhi into the device of AAPA is to prevent leakage current. However, the design of the device in the present invention is for ***reducing the parasitic capacitance and substrate noise of the ESD device*** but not ***to prevent leakage current.*** Therefore, the mere fact that references combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re* Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). To one of ordinary skill in the art, with mere a teaching given by Shokouhi of preventing leakage current, Shokouhi '458 teaches, if any, away from combining "forming a device in a triple P-well located in a deep N-well region that is formed in a P-type substrate" with the AAPA. Therefore, Applicants

submit that the present invention as set forth in claim 1 should not be considered as obvious over the AAPA in view of Shokouhi '458.

Further, the point of argument is not the difference between the advantages of respectively the present invention and the prior art. The point is there is no teaching or suggestion to make the claimed combination and the reasonable expectation of success found in the cited references. Without such teaching or suggestion, the combination between the cited references can not render the present invention obvious. MPEP §2143.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 1 patently define over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-10 patently define over the prior art as a matter of law.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-10 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: belinda@jcipgroup.com.tw
Usa@jcipgroup.com.tw